

-1- (WPAT)

ACCESSION NUMBER
TITLE

75-44638W/27

Battery with a rechargeable zinc electrode - using
porous nickel mesh between anodes and cathodes to
stop dendritic growth

DERWENT CLASSES

L03 X16

PATENT ASSIGNEE

(DEAU-) DEUT AUTOMOBILGES

PRIORITY

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NUMBERS

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PUBLICATION DETAILS

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SECONDARY INT'L. CLASS.

H01M-004/42 H01M-010/24

ABSTRACT

DE2364203 A

The parent patent described a cell with a
rechargeable Zn electrode surrounded by at least one
conducting frame which is wetted by the electrolyte
and is electrically sepn. from the electrodes; the
frame has coarse pores and is made of a material on
which a macroscopically visible Zn deposit from the
electrolyte is obtd. at more negative potentials than
those where a deposit occurs on smooth Ni or sintered
Ni, and the surface of the frame contains catalysts
for the oxidn. of hydrogen in fuel cells using aq.
electrolytes. In the present invention, the frame
has pores with a dia. of 0.05-1 mm, pref. 0.1-0.5 mm.

The pref. pore dia. for fine Zn deposits is 0.1-0.25
mm and 0.25-0.5 mm for coarse in opposite polarity
and improves the rechargeability of the cell by
preventing the formation of Zn dendrites which extend
to the cathode, thus causing short circuits. The
small pores stop fine Zn dendrites from reaching the
cathode.